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ABSTRACT

The Vocational Development Study (VDS) project is a 10-year longitudinal study designed to: (1) evaluate the impact of specific courses of study upon selected aspects of adolescent development, (2) investigate the usefulness of certain tests and inventories in helping ninth graders decide on a suitable senior high school course of study, and (3) test several vocational development theories. Data during the first five years of the VDS study have been gathered from several sources and at many different points of time from a sample of ninth grade students enrolled in three medium sized Pennsylvania school districts. To date eight monographs have been published by the VDS project. The first monograph describes the study as it was envisioned several years after its actual start, while the remaining seven reports deal with specific investigations of the vocational development process. This paper provides an overview of the VDS project and summarizes selected findings and implications from the monographs. (SB)

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A Longitudinal Vocational Development Study: Some Findings and Implications*

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A Longitudinal Vocational Development Study:
Some Findings and Implications

In educational research, and especially in vocational educational research, it appears that the researcher must be able to speak to both basic and applied types of audiences if he is to be heard and/or funded in his research endeavors. Keeping this in mind and sticking with the title of my presentation, I would like to approach the "findings and implications" mentioned therein from two points of view. First of all, I would like to discuss the findings and implications of conducting such a longitudinal study under the conditions which this study has been conducted to date. Secondly, for those who are interested in findings from specific studies conducted as part of the overall project I will present some selected findings and discuss their implications. By approaching my topic in this manner, I hope to satisfy the interests of what I anticipate to be a diversified audience and perhaps stand a better chance of being heard and funded in the future.

Background of the VDS Project

In order to discuss either type of findings or implications described above it is first necessary to provide some background information concerning the project. In order to understand what this proposed ten-year research effort is all about it is necessary to know when it started, what are its stated objectives, the size and nature of the samples involved, how and when the data was collected, and what data was and is being collected. The following paragraphs provide some of this background in a very brief manner.

Beginning in 1968, the Department of Vocational Education at The Pennsylvania State University set out to conduct a ten-year longitudinal study of the Vocational Development Process using samples of ninth graders. The objectives of this project were threefold: (1) to evaluate the impact of specific courses of study upon selected aspects of adolescent development; (2) to investigate the usefulness of certain tests and inventories in helping ninth graders decide on a suitable senior high school course of study; (3) to test several vocational development theories as applied to the prediction of relevant vocational behaviors of adolescents and young adults. The Vocational Development Study (VDS) is now in its fifth year; and to date, eight monographs have been published which report the results of specific studies undertaken to answer questions falling under one of the three objectives of the project. In conducting this study a major part of the financial support was sought and has come from the Pennsylvania Research Coordinating Unit (RCU).

The sample for the VDS project consisted of the total ninth grade enrollment in three medium size Pennsylvania school districts. The total ninth grade enrollment for the three schools in the sample was approximately 3,000. In designing the study, an attempt was made to select schools with a large vocational technical school enrollment, thereby making the choice of a vocational program a realistic alternative. It was felt that an attempted 100 percent sample of three large school systems would combine many of the advantages of Super's Career Pattern Study small sample with those of Project TALENT's large sample.

Data was gathered from several sources and at many different points in time. School records were used to gather grades, some personal information and various standardized test scores already being used in the school systems. Questionnaires were devised to obtain biographical and choice information, and a number of standardized tests were also administered. Although the data collection began in ninth grade, information was collected back to the seventh grade from school files. While the largest amounts of data were collected in grades nine and twelve, a great deal of data was collected during each year. Data was obtained from the first sample beginning in 1968 with the second and third school system joining the project in 1970. This design allowed for the comparison of the same sample at many points in time as well as two samples at the same point in time. All of the data was stored on tape using a matching number to name file. The types of data collected include school grades, attendence records, GATB scores, Vocational Maturity scores (VDI), Occupational Values (OVI), Occupational Choices, Educational Choices, Father's Education, Father's Occupation, Standardized Achievement Test Scores, Vocational Preference Inventory scores (VPI), Ohio Trade and Industrial Education Achievement Test (OTAT) scores (for vocational students only), CEEB scores, and many other pieces of information.

Findings and Implications:

An Overview of the VDS Project

In attempting to provide this overview, several findings will be stated which were derived from the personal experience of the author,

and the author's opinion as to the implication which follows from each finding or experience will be offered. It is obvious that no statistical tests were used in arriving at these findings; however, many hard knocks attested to their discovery. Two of these findings and implications follow:

1. Objectives number one and two are compatible with the perceived needs of the participating schools. Objective number three is generally not of concern to local schools. --The implication from this finding may appear to be obvious (ie. drop objective number three), but to the researcher who is interested in basic research (and someone better be) this is not a satisfactory solution. The solution which this author has come to view as acceptable and workable follows from the introduction to this paper. That is, you need to learn to serve two masters at the same time. In order to accomplish this end the VDS project staff have attempted to balance basic studies with applied studies or draw some applied conclusions and implications from basic studies. We have also attempted to include several pages in each report (colored blue instead of white) which state the findings and implications in an easily read manner.
2. Long term research undertaken at a university as a part of a graduate program needs to be considered as an integral part of that program. --This finding may appear to be obvious or even a redundant statement of fact, but the implications which follow are not as obvious. When deciding to undertake a ten-year study the department involved is making a rather long range commitment for both its faculty and its students. Since no department can be sure that any of those who began the research will be around ten years latter the commitment

needs to be made at a level beyond that represented by any of its individual members.

The decision to take on such a study also dictates somewhat the activities of some of the faculty and many of the graduate students. In recruiting students for research graduate assistantships on the project both the students and faculty need to consider the type of experience the project can provide. When the research is to be conducted by graduate students, the instructional value of the research needs to be considered first, but without neglecting the needs of the project. A research report written by a graduate student who is learning to conduct the particular study and write a report may be less well written than if the project director had written it himself. However, if the educational commitment is taken seriously, this report would be considered more valuable if undertaken by the graduate student as long as minimum quality standards are maintained. This particular implication may require that certain research money not be accepted by the University.

Many other findings and implications which have come to light as a result of the authors five years of experience on this project are worth mentioning, but to do so would make this paper unnecessarily long. The two which have been mentioned, I believe, provide some insight into the general types of findings and implications the author has gained from this project.

Specific Findings and Implications Taken From VDS Research Reports

To date eight monographs have been published by the VDS project. Monograph number one describes the study as it was invisioned by Impellitteri and Kapes in 1971, several years after its actual start.

The remaining reports all dealt with specific investigations and selected findings and their implications are provided here much as they appear in the blue page sections which have accompanied the reports since report number 4. For those who are interested, a complete listing of all eight reports is included at the back of this paper. A limited number of reports are available through the Department of Vocational Education at Penn State, but can also be obtained from ERIC at Ohio State on VEIN at Millersville State College in Millersville, Pennsylvania.

From VDS Monograph Number 2

Finding - Other characteristics being equal the more value the boys placed on prestige as measured by the OVI, the more likely they were to be enrolled in the academic curriculum at the end of tenth grade as opposed to the vocational curriculum. For those boys who were enrolled in the vocational curriculum, the less value they placed on prestige, the more likely they were to be successful students as measured by GPA.

Implication - By lowering their prestige values, unsuccessful academic male students may chose the vocational curriculum and become potentially successful vocational students.

From VDS Monograph Number 4

Finding - Using an interest variable as a predictor (comparing those who received their first choice of a vocational-technical program to those who did not) in addition to the GATB aptitudes did not increase the predictability of either OTAT scores or end-of-year shop grades. Those students who received their first choice did no better than those

who received their second, third or fourth choice.

Implication - The lack of relationship of the interest variable to achievement as measured in this study may indicate that individual interest in a particular program does not affect achievement. It is possible that only those that received their first choice and those that received their second, third or fourth choice and were satisfied were the only students that remained in the vocational program and thus those who were actually uninterested in their program have long since left the vocational school.

From VDS Monograph Number 5

Finding - Interaction between Curriculum and Sex was found to exist for the values of Interest and Satisfaction, Prestige and Security.

Implication - The effect which curriculum has upon the occupational values of ninth and tenth grade students does apparently differ with respect to Sex of the students for such values as Interest and Satisfaction, Prestige and Security.

From VDS Monograph Number 6

Finding - Shop Grade (10th Grade) is the only success measure in which manipulative abilities are important predictors.

Implication - Manipulative abilities seem to be important in determining success in tenth grade shop. In eleventh grade, these abilities are less important. This may indicate that by the eleventh

year, students have become more uniform in terms of manipulative ability. As the student progresses to the eleventh year shop, cognitive skills, attitudes, and values seem to become more important in determining student achievement.

From VDS Monograph Number 7

Finding - An analysis of the 20 independent variables revealed that 18 of these variables significantly differentiated among the four groups: Non-Vocational Dropouts, Vocational Dropouts, Non-Vocational Retainers, and Vocational Retainers.

Implication - Although dropping out appears to be a negative overt response to the school environment, it was found that the socio-affective variables of the home and community contributed to this behavior. This indicates that cooperation is necessary among the community, social agencies, and the school since dropping out appears to be symptomatic of other underlying problems.

a. Since the non-vocational dropouts and the vocational retainers were the most alike on the cognitive function, it seems likely then that non-vocational dropouts would have been successful in a vocational program. Conversely, it seems unlikely that the vocational dropouts would succeed in the non-vocational curriculum.

b. Since the Socio-Affective function showed the least separation between the non-vocational retainers and the vocational dropouts this indicates that cognitive measures used alone are not

sufficient indicators of dropping out. These measures combined with socio-affective measures provide a more realistic profile of a dropout.

From VDS Monograph Number 8

Finding - Of the vocational students who were administered Holland's Vocational Preference Inventory (VPI), 57 percent were classified as Realistic personality types. The remaining personality types were found to be present in the following percentages: Intellectual, 8 percent; Social, 4 percent; Conventional, 9 percent; Enterprising, 10 percent; and Artistic, 12 percent.

Implication - Holland's hypothesis that people tend to select an environment consistent with their personality type is somewhat supported by the findings of this study. Therefore, the assessment of both students and shop environments using the Vocational Preference Inventory (VPI) could contribute to the shop selection process.

VOCATIONAL DEVELOPMENT STUDY SERIES

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